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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,092

05/31/2006

Koichiro Nakazawa

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08/17/2009

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EXAMINER

SHAH, MANISH S

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/581,092	<b>Applicant(s)</b> NAKAZAWA ET AL.	
	<b>Examiner</b> Manish S. Shah	<b>Art Unit</b> 2853	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 & 3-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horii et al. (# US 2005/0041081).

Horii et al. discloses:

- An ink jet printing apparatus ([0184]) for printing by ejecting an ink containing a colorant from a print head, comprising: at least one ink absorber ([0046]; [0184]-[0185]) containing a coagulation inhibitor and absorbing the ink discharged from the print head, the coagulation inhibitor inhibiting a coagulation of the colorant contained in the ink ([0045]-[0048]; [0105]-[0112]; [0174]-[0179]).

- An ink jet printing apparatus further comprising: a preliminary ejection means for preliminary-ejecting the ink from the print head; and a preliminary ejection receiver for accommodating the ink preliminary-ejected by the preliminary ejection means; wherein the at least one ink absorber absorbs the ink accommodated in the preliminary ejection receiver ([0045]-[0048]; [0094]; [0105]-[0112]).

- An ink jet printing apparatus further comprising: an ink discharging means for discharging the ink from the print head by other than an ejection; and an ink discharging path for transporting the ink discharged by the ink discharging means;

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wherein the at least one ink absorber absorbs the ink transported through the ink discharging path ([0022]-[0044]; [0105]-[0112]).

- An ink jet printing apparatus further comprising: a reaction liquid head for ejecting a reaction liquid, the reaction liquid accelerating a coagulation of colorant contained in the ink; a reaction liquid discharging means for discharging the reaction liquid from the reaction liquid head; and a reaction liquid discharging path for transporting the reaction liquid discharged by the reaction liquid discharging means; wherein the at least one ink absorber absorbs the ink transported through the ink discharging path and the reaction liquid transported through the reaction liquid discharging path ([0105]-[0112]).

- An ink jet printing apparatus further comprising: a reaction liquid head for ejecting a reaction liquid, the reaction liquid accelerating a coagulation of colorant contained in the ink ([0022]-[0040]; [0045]-[0048]).

- An ink jet printing apparatus further comprising: a supply means for supplying the coagulation inhibitor to the at least one ink absorber ([0094]), wherein said supply means comprises a coagulation inhibiting liquid head for ejecting the coagulation inhibitor ([0094]; [0184]-[0185]; [0194]).

- An ink jet printing apparatus for printing by ejecting an ink containing a colorant from a print head, comprising: an ink absorber for absorbing the ink discharged from the print head; and an application means for applying a coagulation inhibitor to the ink absorber, the coagulation inhibitor inhibiting a coagulation of the colorant contained in the ink ([0045]-[0048]; [0094]; [0105][0112]; [0184]-[0185]).

- A method of manufacturing an ink absorber comprising the steps of: immersing the ink absorber in a liquid containing the coagulation inhibitor; and drying the ink absorber immersed with the liquid ([0194]-[0218]; see Examples).

Horri et al. clearly didn't disclose the steric hindrance effect for preventing contact among the particles.

However, Horri et al. teaches the same chemical composition and the same apparatus, therefore inherently it will perform the same function. Therefore, obviously it performs the steric hindrance effect among the particles.

3. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchida (# US 2003/0030692) in view of Horri et al. (# US 2005/0041081).

Uchida discloses an inkjet printing apparatus for printing by ejecting an ink containing a colorant from a print head (element: M1000, figure: 1), comprising: at least one ink absorber (element: M2006; figure: 1). They also disclose that the ink jet printing apparatus further comprising a platen (element: M2001; M2001a; M2001b; figure: 1-4) supporting a print medium (element: P) from below in an area including a print area where the print head ejects (element: M1000; figure: 1-2) the ink onto the print medium; wherein the at least one ink absorber is installed in the platen to absorb the ink ejected outside the print medium when a printing operation is performed on edge portions of the print medium (element: M2006; figure: 1-4).

Uchida differs from the claim of the present invention is that the ink absorber containing a coagulation inhibitor and the coagulation inhibitor inhibiting a coagulation of the colorant contained in ink.

Horri et al. teaches that to prevent the coagulation between the two liquid, the absorber containing a coagulation inhibitor and the coagulation inhibitor inhibiting a coagulation of the colorant contained in ink ([0046]-[0048]; [0105]-[0112]; [0184]-[0185]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the inkjet printing apparatus of Uchida by the aforementioned teaching of Horri et al. in order to prevent the coagulation between the two liquid, which gives high quality inkjet recording apparatus.

Horri et al. clearly didn't disclose the steric hindrance effect for preventing contact among the particles.

However, Horri et al. teaches the same chemical composition and the same apparatus, therefore inherently it will perform the same function. Therefore, obviously it performs the steric hindrance effect among the particles.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant argued that the coagulation inhibitor in Horii et al. is a chelating agent, not a coagulation inhibitor inhibiting coagulation of the colorant contained in the ink by preventing contact among particles of the colorant due to an effect of steric hindrance,

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as is recited in independent Claims 1, which is not persuasive. Horri et al. discloses the same chemical composition as applicant's own specification, therefore it does perform the same function. Therefore it would have been obvious that it teaches the preventing contact among particles of the colorant due to an effect of steric hindrance. However the claims are apparatus claims, therefore it doesn't limit the process steps. It doesn't matter due to which effect it prevents the cogulation, as long as it prevents the cogulation, it reads on the present claims.

### ***Conclusion***

1. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Manish S. Shah/  
Primary Examiner  
Art Unit 2853

/MSS/